Effective Teaching Strategies in Higher Education

Colleen Dragovich – Educational Psychology
Odeh Halaseh – Political Science
Purpose

• This workshop simply aims to present an overview of important concepts and strategies to college teaching.

• We will focus on several important aspects of classroom teaching.

• We hope to present inspiring and thought-provoking methods for improving the effectiveness of teaching within your classrooms.

“Teaching is not a lost art, but the regard for it is a lost tradition.”

– Jacques Barzun
• Lecturing is one of the oldest, and most widely used method of conveying knowledge.
• Effective lecturing balances the talents of scholar, writer, producer, entertainer, and teacher in ways that contribute to student learning.
• Lectures suffer from serious handicaps as not all information is available in print form. Thus, it is not uncommon to adapt materials from a variety of sources or tailor the background of interest towards an audience.
• What’s wrong with this slide?
Introduction of Lecture

• **Focus student attention:**
  - Existing Knowledge
  - Situation or Explanation
  - Case Studies

• **One Minute Paper:**
  - Low Stakes Writing
  - Putting thought to paper forces clarification and organization
• One of the most common mistakes is trying to include too much!
• Students’ information processing capacities are limited.
  • “mental daze” (cognitive overload)
• Do not be afraid to use the chalkboard, overhead, or PowerPoint.
  • However, do not rely entirely on visuals!
• Provide examples that relate the student’s experience and knowledge with the subject matter
• Do not be afraid to ask if the students have questions.
Conclusion of Lecture

• Opportunity to make up for lapses in the body of the lecture.
• Encourage students to question!
• Reiterate major points, purpose questions, or even ask the students questions over the main points of the lecture.
Group Work and Discussions

• The Differentiated Overt Learning Activities (DOLA) Framework (Chi, 2009) discusses the overt activities and cognitive processes involved in student classroom participation.
  • Active – doing something physically (most common)
  • Constructive – producing outputs that go beyond the presented information
  • Interactive – having a discussion about a topic in which a partner’s contributions are acknowledged (best - when used properly)

• Active > Constructive > Interactive
Table 1
Characteristics, overt activities, and cognitive processes, for active, constructive, and interactive activities, from the learner’s perspective

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>Active</th>
<th>Constructive</th>
<th>Interactive</th>
</tr>
</thead>
<tbody>
<tr>
<td>Doing something physically</td>
<td>Producing outputs that contain ideas that go beyond the presented information</td>
<td>Dialoguing substantively on the same topic, and not ignoring a partner’s contributions</td>
<td></td>
</tr>
</tbody>
</table>

**Overt activities**

- **Engaging Activities**
  - Look, gaze, or fixate
  - Underline or highlight
  - Gesture or point
  - Paraphrase
  - Manipulate objects or tapes
  - Select
  - Repeat

- **Self-construction Activities**
  - Explain or elaborate
  - Justify or provide reasons
  - Connect or link
  - Construct a concept map
  - Reflect, or self-monitor
  - Plan and predict outcomes
  - Generate hypotheses

**Guided-construction Activities in Instructional Dialogue:**

- Respond to scaffoldings
- Revise errors from fdbk

**Sequential or Co-construction Activities in Joint Dialogue:**

- Build on partner’s cont
- Argue, defend
- Confront or challenge

**Cognitive processes**

- **Attending Processes**
  - Activate existing knowledge
  - Assimilate, encode, or store new information
  - Search existing knowledge

- **Creating Processes**
  - Infer new knowledge
  - Integrate new information with existing knowledge
  - Organize own knowledge for coherence
  - Repair own faulty knowledge
  - Restructure own knowledge

- **Jointly Creating Processes**
  - Creating processes that incorporate a partner’s contributions
Improving Study Outcomes

- Improving Students’ Learning with Effective Learning Techniques (Dunlosky, et al., 2013) outlines some commonly used learning techniques and discusses their effectiveness.

<table>
<thead>
<tr>
<th>Table 1. Learning Techniques</th>
</tr>
</thead>
<tbody>
<tr>
<td>Technique</td>
</tr>
<tr>
<td>1. Elaborative interrogation</td>
</tr>
<tr>
<td>2. Self-explanation</td>
</tr>
<tr>
<td>3. Summarization</td>
</tr>
<tr>
<td>4. Highlighting/underlining</td>
</tr>
<tr>
<td>5. Keyword mnemonic</td>
</tr>
<tr>
<td>6. Imagery for text</td>
</tr>
<tr>
<td>7. Rereading</td>
</tr>
<tr>
<td>8. Practice testing</td>
</tr>
<tr>
<td>9. Distributed practice</td>
</tr>
<tr>
<td>10. Interleaved practice</td>
</tr>
</tbody>
</table>

Note. See text for a detailed description of each learning technique and relevant examples of their use.
Improving Study Outcomes

• Improving Students’ Learning with Effective Learning Techniques (Dunlosky, et al., 2013) outlines some commonly used learning techniques and discusses their effectiveness
  • Practice Testing and Distributed Practice are very effective
  • Elaborative Interrogation and Self-Explanation are promising techniques, but need more research
  • Rereading, Highlighting or Underlining, Summarization, Keyword Mnemonics, and Imagery for Text are not very effective
<table>
<thead>
<tr>
<th>Technique</th>
<th>Extent and Conditions of Effectiveness</th>
</tr>
</thead>
<tbody>
<tr>
<td>Practice testing</td>
<td>Very effective under a wide array of situations</td>
</tr>
<tr>
<td>Distributed practice</td>
<td>Very effective under a wide array of situations</td>
</tr>
<tr>
<td>Interleaved practice</td>
<td>Promising for math and concept learning, but needs more research</td>
</tr>
<tr>
<td>Elaborative interrogation</td>
<td>Promising, but needs more research</td>
</tr>
<tr>
<td>Self-explanation</td>
<td>Promising, but needs more research</td>
</tr>
<tr>
<td>Rereading</td>
<td>Distributed rereading can be helpful, but time could be better spent using another strategy</td>
</tr>
<tr>
<td>Highlighting and underlining</td>
<td>Not particularly helpful, but can be used as a first step toward further study</td>
</tr>
<tr>
<td>Summarization</td>
<td>Helpful only with training on how to summarize</td>
</tr>
<tr>
<td>Keyword mnemonic</td>
<td>Somewhat helpful for learning languages, but benefits are short-lived</td>
</tr>
<tr>
<td>Imagery for text</td>
<td>Benefits limited to imagery-friendly text, and needs more research</td>
</tr>
</tbody>
</table>
• What are your impressions of lectures from your undergraduate career?
• What did you find to be the most effective or memorable?
• What did you find to be the least effective?
• Based on this information, what can you as an instructor do to improve student learning outcomes?
Teaching Assistant Training Program

Sponsored by Graduate Student Orientation and the Division of Graduate Studies

• Gain access to teaching resources that will help you as a teaching assistant now or in the future
• Watch the video lessons with valuable information
• Take the quiz at the end
• If you pass, you will receive a TATP Certificate of Participation that you can put on your CV or resume

For more information, visit: https://www.kent.edu/graduatestudies/teaching-assistant-training-program
References and Further Reading


Thank you!

"Tell me and I forget. Teach me and I remember. Involve me and I learn."

-- Benjamin Franklin

Colleen Dragovich – cdragovi@kent.edu
Odeh Halaseh – ohalaseh@kent.edu